

What is Claimed is:

1. A system for searching music, based upon music content that may be described by a plurality of predetermined feature vectors, comprising:

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a user interface that can receive a plurality of user requests for searching music, wherein the user requests defines a set of search parameters.

2. The system of Claim 1, wherein, one of the plural feature vectors is an emotional quality vector describing the emotional reaction to music, based upon whether music is Intense, Happy, Sad, Mellow, Romantic, Heartbreaking, Aggressive, or other emotions.

3. The system of Claim 1, wherein, one of the plural feature vectors is a vocal quality vector describing the vocal quality of music, based upon whether music includes a Smooth voice, a Powerful voice, a Great voice, a Soulful voice, or other voice qualities.

4. The system of Claim 1, wherein, one of the plural vectors is a sound quality vector describing the sound quality of music, based upon whether music includes a Strong beat, or is simple, or has a good groove, or is fast, or is speech like, or emphasizes a melody, or other sound qualities.

5. The system of Claim 1, wherein, one of the plural feature vectors is a situational quality vector describing the plural situations for which the music may be used, based on whether the music is, good for a workout, a shopping mall, a dinner party, a dance party, for slow dancing, or for studying or other situations.

6. The system of Claim 1, wherein, one of the plural feature vectors is a genre vector describing the music genre, based on whether the music is belongs to a plurality of genres including, Alternative, Blues, Country, Electronic/Dance, Folk, Gospel, Jazz, Latin, New Age, R&B, Soul, Rap, Hip-Hop, Reggae, Rock or others.

7. The system of Claim 1, wherein, one of the plural feature vectors is an ensemble vector describing the music ensemble, based on whether the music includes a female solo, male solo, female duet, male duet, mixed duet, female group, male group or instrumental.

8. The system of Claim 1, wherein, one of the plural feature vectors is an instrument vector describing the music instruments, based on whether the music includes a includes an acoustic guitar, electric guitar, bass, drums, harmonica,

organ, piano, synthesizer, horn, or saxophone or other instruments.

9. The system of Claim 1, further comprising:

a plurality feature vector mixers, that allow a user to set a level of a specific feature vector.

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10. The system of Claim 9, wherein the feature vector mixers include a genre mixer.

11. The system of Claim 9, wherein the feature vector mixers include a voice quality mixer.

12. The system of Claim 9, wherein the feature vector mixers include an emotional quality mixer.

13. The system of Claim 9, wherein the feature vector mixers include an instrument mixer.

14. The system of Claim 9, wherein the feature vector mixers include a voice quality mixer.

15. A system for searching music based upon music content that may be described by a plurality of predetermined feature vectors, wherein a user enters search parameters

into a user interface that allows a user to vary the plural levels of the plural feature vectors, comprising:

a user interface engine that receives the user requests for searching music based upon user chosen feature vector levels, wherein the user interface includes a parser for parsing the user requests

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16. The system of Claim 15, wherein the parser is a XML parser.

17. The system of Claim 15, wherein the user requests includes standard query language (SQL) calls to the user interface engine.

18. The system of Claim 15, further comprising:

an inferential engine that performs search for music by comparing the plural feature vectors of plural music samples based upon the user entered search parameters, wherein the feature vectors describe music attributes.

19. The system of Claim 1, further comprising:

a modeling module that performs a similarity analysis by comparing feature vectors stored in a production database.

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20. A system for creating a plurality of music spaces that allows comparison of music attributes, defined by a plurality of feature vectors that are based upon expert data collected from a plurality of expert music listeners and a plurality of music listeners who respond to a plurality of questions after listening to a plurality of music samples, comprising:

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a modeling module that acquires the expert music listener and music listener responses for defining a plurality of music spaces.

21. The system of Claim 20, wherein, one of the plural music spaces is based upon an emotional quality vector describing the emotional reaction to music, based upon whether music is Intense Happy, Sad, Mellow, Romantic, Heartbreaking, Aggressive, or other emotions.

22. The system of Claim 20, wherein, one of the plural music spaces is based upon a vocal quality vector describing the vocal quality of music, based upon whether music includes a Smooth voice, a Powerful voice, a Great voice, a Soulful voice, or other voice qualities.

23. The system of Claim 20, wherein, one of the plural music spaces is based upon a sound quality vector describing the sound quality of music, based upon whether music includes a

Strong beat, or is simple, or has a good groove, or is fast, or is speech like, or emphasizes a melody, or other sound qualities.

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24. The system of Claim 20, wherein, one of the plural music spaces is based upon a situational quality vector describing the plural situations for which the music may be used, based on whether the music is, good for a workout, a shopping mall, a dinner party, a dance party, for slow dancing, or for studying or other situations.

25. The system of Claim 20, wherein, one of the plural music spaces is based upon a genre vector describing the music genre, based on whether the music is belongs to a plurality of genres including, Alternative, Blues, Country, Electronic/Dance, Folk, Gospel, Jazz, Latin, New Age, R&B, Soul, Rap, Hip-Hop, Reggae, Rock or others.

26. The system of Claim 20, wherein, one of the plural music spaces is based upon an ensemble vector describing the music ensemble, based on whether the music includes a female solo, male solo, female duet, male duet, mixed duet, female group, male group or instrumental.

27. The system of Claim 20, wherein, one of the plural music spaces is based upon an instrument vector describing the music instruments, based on whether the music includes a includes an acoustic guitar, electric guitar, bass, drums, harmonica, organ, piano, synthesizer, horn, or saxophone or other instruments.

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cond.* 28. The system of Claim 27, wherein on of the plural music spaces is a combined music space that may include a plural combinations of the emotional quality vector, vocal quality vector, sound quality vector, ensemble quality vector, genre vector, instrument vector, or situational vector.

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